

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

In the Matter of)	
)	
An Inquiry Into the Commission's Policies)	MM Docket No. 93-177
and Rules Regarding AM Radio Service)	
Directional Antenna Performance Verification)	

To: The Commission

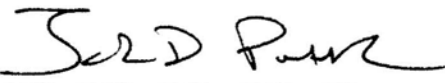
SUPPLEMENTAL REPLY COMMENTS

The AM Directional Antenna Performance Verification Coalition ("Coalition") hereby supplements the Reply Comments it filed on September 5, 2007 in the above-captioned proceeding relating to the Coalition's proposed new rule under Part 17 that would harmonize the disparate treatment afforded under Section 22.371, Section 27.63, and Section 73.1692 with respect to disturbances caused to AM stations as a consequence of construction near or installation on an AM broadcast antenna system or tower (the "Part 17 Proposal").

The purpose of this supplemental filing is to submit for consideration a revised rule to implement the Part 17 Proposal that both clarifies and modifies Section (a)(2) thereof. Specifically, the Coalition has revised that portion of the rule to separate the discussion of directional and omnidirectional antennas and to provide that an antenna tower or support structure must be located within 1.2 wavelengths, as opposed to 1 wavelength, of an omnidirectional AM antenna in order to be considered in the "immediate vicinity" of that omnidirectional AM antenna. A copy of the revised rule is included at Attachment A.

Respectfully submitted,

**AM DIRECTIONAL ANTENNA PERFORMANCE
VERIFICATION COALITION**

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ATTACHMENT A

Revised Proposed Rule Under Part 17

Construction near or installation on an AM broadcast antenna system or tower.

(a) *Construction near an AM broadcast antenna system.* All Commission licensees that construct or make a significant modification to an antenna tower or support structure in the immediate vicinity of an AM antenna system are responsible for measures necessary to correct disturbances of the AM antenna radiation pattern that causes operation of the AM station outside of the radiation parameters specified by the FCC, if the disturbance occurs as a result of such construction or modification. The proponent of such construction or modification shall notify the licensee of the AM station in advance of the proposed construction or modification.

(1) A modification to an existing antenna tower or support structure is a significant modification it results in:

- (i) with respect to an antenna tower or support structure that is in the immediate vicinity of an AM antenna system, any change, including the addition or removal of an antenna or mounting platform, that would alter the structure's physical height by 5 degrees or more at the AM station's carrier frequency; or
- (ii) the addition of one or more antennas or a transmission line to an antenna tower that has been detuned or base-insulated in order to prevent disturbances of the radiation pattern of such AM antenna system as a result of the requirements of this section, or a previously applicable FCC rule.

Notwithstanding the provisions of paragraphs (i) and (ii) above, the addition or modification of an antenna or antenna structure on a building shall not be considered a significant modification unless such addition or modification increases the overall physical height of the building by more than 10 degrees.

(2) An antenna tower or support structure is in the immediate vicinity of an omnidirectional AM antenna if it is greater than 60 electrical degrees in physical height at the AM station frequency and is located within 1.2 wavelengths of the AM antenna. An antenna or support structure is in the immediate vicinity of a directional AM antenna system if it is greater than 45 electrical degrees in physical height at the AM station frequency and is located within the lesser of 10 wavelengths or 3.0 km of the AM antenna.

(3) Licensees proposing construction of or a significant modification to an existing antenna tower or support structure in the immediate vicinity of an AM antenna system shall examine the potential effects thereof using a moment method analysis. The moment method analysis shall consist of a model of the AM antenna together with the potential reradiating antenna tower or support structure in a lossless environment. The model shall employ the methodology specified in 73.151(a), with the exception that the directional antenna array elements may be modeled as thin-wires driven to produce the required directional antenna field parameters, absent external influences, without any requirement for measurement of their characteristics, with the tower under study modeled in to account for its physical characteristics.

The construction or modification shall be deemed to have no adverse affect on the AM antenna system, and no remedial measures will be required, if the model shows that:

- (i) the omnidirectional radiation pattern of the AM station would not be made non-circular by more than 2 dB; or
- (ii) the theoretical radiation pattern of an AM directional antenna would not be distorted outside the licensed standard or augmented radiation pattern.

With respect to an AM station that was authorized pursuant to a directional proof of performance conducted with field strength measurements, the proponent of the construction or modification may, in lieu of the showing described in Paragraph (3)(ii), demonstrate through measurements taken both prior to and upon completion of the construction or modification that (A) the monitor point values of the AM directional antenna do not exceed the licensed values, or (B) in the event that the pre-construction or modification monitor point values exceed the licensed values, the post-construction or modification monitor point values do not exceed the pre-construction or modification monitor point values. Alternatively, the proponent may file for authority to increase the relevant monitor point value after performing a partial proof of performance in accordance with §73.154 that establishes that the licensed radiation limits on the applicable radial are not exceeded.

(4) Absent a showing of no adverse affect as described in Paragraph 3, the proponent of the construction or significant modification shall be responsible for the installation and continued maintenance and proper operation of any detuning apparatus necessary to restore proper performance of the AM antenna system.

(b) *Installation on an AM antenna tower.* A licensee of an AM station employing an omnidirectional antenna shall conduct an antenna impedance measurement after the completion of construction, and if the results show changed conditions, the licensee shall file an application on FCC Form 302-AM to return to direct power measurement. Prior to commencing construction, the licensee of an AM station employing a directional array shall request Special Temporary Authority pursuant to §73.1635 for operation of the antenna system. If the construction and any necessary adjustments to the antenna system result in antenna monitor parameters that are not within the tolerances specified by §73.62(a) or, where applicable, monitor point field strength limits specified in the station license, an application on FCC Form 302-AM (including a tower sketch of the installation) shall be filed with the Commission for the AM station, including antenna measurements as follows:

- (1) if the license was granted pursuant to a proof of performance employing field strength measurements, a partial proof of performance (as defined by §73.154(a)); or
- (2) if the license was granted pursuant to §73.151(a), a new analysis using the modified antenna characteristics shall be performed in accordance with that section.